

AMENDMENTS TO THE CLAIMS

Claim 1. (*Currently Amended*) A sole for a boot, especially a sports boot, said sole comprising:

a front portion and a rear portion more rigid in longitudinal bending than the front portion,

at least one reinforcement in said two portions, wherein:

the front portion comprises a front half-sole affixed to the reinforcement, the front portion comprising at least one element for coupling to a gliding support;

the rear portion comprises a rear half-sole affixed to the reinforcement; and

the front and rear half-soles are assembled to one another in a junction zone, preferably, by cementing and/or riveting and/or welding zone.

Claim 2. (*Previously Presented*) A sole according to claim 1, wherein the limit between the flexible front portion and the rigid rear portion is located substantially at the rear of a portion of the sole adapted to correspond to the metatarsophalangeal bending zone of a wearer's foot.

Claim 3. (*Original*) A sole according to claim 1, wherein the two front and rear half-soles overlap one another in the junction zone and wherein the length of the junction zone is adjustable depending on the size.

Claim 4. (*Currently Amended*) A sole according to claim 3, wherein the rear half-sole, viewed from beneath, (seen from the bottom) overlaps the front half-sole in the junction zone.

Claim 5. (*Currently Amended*) A sole according to claim 3, claim 1, wherein the junction junction/overlapping zone is located in and/or behind a portion of the sole adapted to correspond to the metatarsophalangeal bending zone of a wearer's foot.

Claim 6. (*Original*) A sole according to claim 1, wherein it includes a reinforcement constituted by at least one laminated or non-laminated plate extending from the junction zone, both on at least half of the front portion and on at least half of the rear portion.

Claim 7. (*Previously Presented*) A sole according to claim 1, wherein the reinforcement has a length corresponding substantially to at least 60% of the length of the sole.

Claim 8. (*Currently Amended*) A sole ~~for a sports boot, said sole comprising:~~ according to claim 1, further comprising an element adapted to couple the sole to a gliding sports apparatus.

~~a front portion and a rear portion, the rear portion being more rigid in longitudinal bending than the front portion;~~

~~at least one reinforcement extending along both of said two portions, wherein:~~

~~the front portion comprises a front half-sole affixed to the reinforcement;~~

~~the rear portion comprises a rear half sole affixed to the reinforcement;~~

~~at least one of said front and rear portions has a construction designed to cooperate with a sports apparatus; and~~

~~the front and rear half soles are assembled to one another in a junction zone by cementing and/or riveting and/or welding.~~

Claim 9. (*Currently Amended*) A sole according to claim 1, wherein for a sports boot, said sole comprising:

a front portion and a rear portion more rigid in longitudinal bending than the front portion;

at least one reinforcement in said two portions;

the front portion comprises a front half-sole affixed to the reinforcement;

the rear portion comprises a rear half-sole affixed to the reinforcement; and

the front and rear half-soles are assembled to one another in a junction zone;

at least one of the front or rear half-soles comprising is constituted by at least one piece for guiding and and/or at least one piece for connecting to a gliding sports apparatus.

Claim 10. (*Currently Amended*) A sole according to claim 9, wherein the sole has, on a lower surface, in the front portion and/or rear portion:

- at least one guiding member, adapted to cooperate with complementarily shaped guiding support provided on the gliding a sports apparatus, the sole being adapted to be coupled to the gliding sports apparatus.

Claim 11. (*Original*) A sole according to claim 1, wherein the reinforcement is assembled to the front and rear portions of the sole by cementing.

Claim 12. (*Currently Amended*) A sole according to claim 1, wherein at least one of the front and ~~or~~ rear (~~preferably front~~) half-soles is ~~duplicate~~ molded onto ~~on~~ the reinforcement, said ~~at least one~~ molded half-sole comprising a moldable plastic material, ~~this~~ ~~duplicate~~ ~~molding~~ ~~being~~ ~~preferably~~ ~~selected~~ ~~from~~ ~~the~~ ~~moldable~~ ~~plastic~~ ~~materials~~, reinforced or non-reinforced, and having appropriate mechanical qualities for rigidity in the rear portion and flexibility in the front portion.

Claim 13. (*Currently Amended*) A sole according to claim 12, wherein the front half-sole is ~~duplicate~~ molded onto ~~on~~ the reinforcement, and wherein the rear half-sole is cemented onto ~~on~~ the reinforcement.

Claim 14. (*Original*) A sole according to claim 1, wherein the reinforcement is made of a composite material.

Claim 15. (*Original*) A sole according to claim 1, wherein the reinforcement has a sandwich structure.

Claim 16. (*Previously Presented*) A sole according to claim 1, wherein the reinforcement has a sandwich structure having a thickness less than or equal to 3 mm.

Claim 17. (*Original*) A sole according to claim 1, wherein the reinforcement is a plate covered, at least on one of its surfaces, with at least one compatibility layer, advantageously constituted by at least one synthetic film forming polymer, especially selected from the group including polyamides and/or polyolefines and/or polyurethanes.

Claim 18. (*Original*) A sole according to claim 12, wherein the reinforcement is a plate comprising perforations adapted to enable the passage of bridges of molding material(s) connecting the portions of the half-sole located above and beneath the reinforcement.

Claim 19. (*Canceled*)

Claim 20. (*Original*) A sole according to claim 1, wherein, in the rear portion, the reinforcement has one or several upward extensions, and/or is associated with at least one other reinforcement.

Claim 21. (*Original*) A sole according to claim 1, wherein the rear portion forms an integral assembly with a stiffener covering the heel, the rear portion preferably having a different, and even more preferably greater rigidity than that of the stiffener.

Claim 22. (*Currently Amended*) A sole according to claim 1, wherein the front half-sole, the rear half-sole, and the reinforcement, ~~and possible the stiffener~~, are made of different materials.

Claim 23. (*Currently Amended*) A sole according to claim 1, wherein the sole ~~it~~ is an outer sole.

Claim 24. (*Currently Amended*) A sole according to claim 1, further comprising ~~wherein it includes~~ one or several recesses provided at least in ~~a~~ its lower surface of the sole, thereby exposing and showing a portion of the reinforcement.

Claim 25. (*Withdrawn*) A method of manufacturing a sole according to claim 1, said method comprises comprising:

- using a plate adapted to be the reinforcement of the sole and having a form corresponding substantially to the form of the projection, on a plane, of a human foot placed on this plane;
- assembling ~~(by cementing, riveting, or duplicate molding)~~ the reinforcement to at least a front half-sole to obtain an intermediate piece.

Claim 26. (*Withdrawn*) A method of manufacturing the sole according to claim 25, wherein the method assembly, obtained by duplicate molding, the assembly step comprises:

- placing the reinforcement in a mold whose cavity corresponds to the form of the front and/or rear ~~(preferably front)~~ half-sole of the sole;
- possibly placing in the mold at least one element for coupling the sole to a sports apparatus, preferably a gliding support apparatus;
- duplicate molding the reinforcement at least to by means of identical or different material(s), preferably different at least for the front half-sole and the rear half-sole;
- extracting from the mold the intermediate piece formed by the reinforcement on which at least the front half-sole ~~(or the rear half-sole)~~ is duplicate molded.

Claim 27. (*Withdrawn*) A method according to claim 26, wherein:

- a mold of at least the front (or rear) half-sole is used during said in the duplicate molding step; molding of at least the front half-sole.
- the duplicate molding of the front (or rear) half-sole is then undertaken according to the step 3;
- one then retrieves an intermediate piece formed by the reinforcement on which the front half-sole (or the rear half-sole) is duplicate molded.

Claim 28. (*Withdrawn*) A method of manufacturing the sole according to claim 25, wherein, subsequent to the method, process, the rear half-sole (or the front half-sole) is fixed on the intermediate piece, for example by cementing.

Claim 29. (*Withdrawn*) A method of manufacturing a sole according to claim 25, wherein 1, said method comprising:

- the intermediate piece is placed in a mold of the rear (or front) half-sole;
- the rear (or front) half-sole is duplicate molded;
- the sole comprising the duplicate molded reinforcement is extracted from the mold

- using a plate adapted to be the reinforcement of the sole and having a form corresponding substantially to the form of the projection, on a plane, of a human foot placed on this plane;

- assembling the reinforcement to at least a rear half-sole to obtain an intermediate piece, the assembling comprising:

- placing the reinforcement in a mold whose cavity corresponds to the form of the rear half-sole of the sole;

- placing in the mold at least one element for coupling the sole to a sports apparatus;

- molding the reinforcement at least to the rear half-sole;

- extracting from the mold the intermediate piece formed by the reinforcement on which at least the rear half-sole is molded.

Claim 30. (*Canceled*)

Claim 31. (*Previously Presented*) A boot, wherein the boot comprises a sole according to claim 1.

Claim 32. (*Withdrawn*) A boot, wherein the boot comprises a sole manufactured by the method according to claim 25.

Claim 33. (*Canceled*)

Claim 34. (*Currently Amended*) A boot according to claim 31, the sole of the boot having a structure adapting the boot adapted to be fixed on a sports apparatus, said boot comprising a member selected from the group consisting of: preferably pertaining to the group including:

- ski boot, in particular cross-country or telemark ski boot;
- cross-country ski boot;
- telemark ski boot;
- cycling shoe;
- roller skate boot;

- ice skate boot;
- rowing shoe;
- water ski shoe;
- surf shoe;
- snowboard boot;
- ski surf shoe;
- wakeboard shoe;
- a boot with climbing crampons.

Claim 35. (*Original*) A use of the sole according to claim 1.

Claim 36. (*Withdrawn*) A use of the sole according to the method of claim 25.

Claim 37. (*Withdrawn*) A use of the sole according to the intermediate piece as defined in claim 25.

Claim 38. (*Canceled*)

Claim 39. (*Previously Presented*) A sole according to claim 1, further comprising a plate to reinforce the sole, said plate having a shape corresponding substantially to a planar projection of a human foot.

Claim 40. (*Previously Presented*) A sole according to claim 1, wherein the reinforcement has a length corresponding substantially to at least 70% of the length of the sole.

Claim 41. (*Previously Presented*) A sole according to claim 1, wherein the reinforcement has a length corresponding substantially to at least 80% of the length of the sole.

Claim 42. (*Previously Presented*) A sole according to claim 10, further comprising at least one adherent and wear-resisting pad positioned on the lower surface of the sole in the front portion and/or rear portion.

Claim 43. (*Currently Amended*) A sole for a boot, said sole comprising:

a front portion and a rear portion more rigid in longitudinal bending than the front portion;

at least one reinforcement positioned at least partially along both of said two portions, wherein:

the front portion comprises a front half-sole affixed to the reinforcement;

the rear portion comprises a rear half-sole affixed to the reinforcement;

the front and rear half-soles are assembled to one another in a junction zone of said half-soles, said junction zone of said half-soles extending at least partially beneath ~~above~~ said one reinforcement.

Claim 44. (*Previously Presented*) A sole for a boot according to claim 43, wherein at least one of the front and rear half-soles comprises at least one portion constructed to guide and to connect the sole to a sports apparatus.

Claim 45. (*Previously Presented*) A sole for a boot according to claim 43, wherein the front and rear half-soles are assembled to one another in a junction zone at least with cement.

Claim 46. (*Previously Presented*) A sole for a boot according to claim 43, wherein the front and rear half-soles are assembled to one another in a junction zone at least with rivets.

Claim 47. (*Previously Presented*) A sole for a boot according to claim 43, wherein the front and rear half-soles are assembled to one another in a junction zone at least by welding.

Claim 48. (*Previously Presented*) A sports boot comprising:

 a sole according to claim 43; and
 an upper affixed to said sole.

Claim 49. (*Currently Amended*) A boot comprising:

 an upper;
 an outer sole affixed to said upper, said sole comprising:
 a front sole portion; and
 a rear sole portion, said rear sole portion being more rigid in longitudinal bending than said front sole portion;

 at least one reinforcement structure, ~~said one reinforcement structure extending along at least partially each of said front and rear sole portions, and said one reinforcement structure comprising comprises a composite material; structure more rigid than constituent materials of each of said front and rear sole portions;~~

 said front and rear sole portions comprising two distinct non-unitary portions assembled together in a junction zone, said one reinforcement structure extending longitudinally through said junction zone.

Claim 50. (*Previously Presented*) A boot according to claim 49, wherein said one reinforcement structure has an outer periphery spaced from outer peripheries of both of said front and rear sole portions.

Claim 51. (*Currently Amended*) A boot according to claim 49, wherein said sole further comprises ~~tread~~ members extending downwardly from at least one of said front and rear sole portions, said members adapted to cooperate with a support for the sole.

Claim 52. (*Currently Amended*) A boot according to claim 51, 49, wherein said sole ~~further comprises~~ ~~tread~~ members have having been molded integrally with said constituent materials of said front and rear sole portions.

Claim 53. (*Previously Presented*) A boot according to claim 49, wherein said one reinforcement structure is positioned above at least parts of said front and rear sole portions.

Claim 54. (*Previously Presented*) A boot according to claim 49, wherein said flexible front portion of said sole and said rigid rear portion of said sole meet at said junction zone located substantially rearward of a portion of said sole adapted to correspond to the metatarsophalangeal bending zone of a wearer's foot.

Claim 55. (*Previously Presented*) A boot according to claim 49, wherein said front and rear portions of said sole overlap one another in said junction zone and wherein said junction zone has an adjustable length, said length being dependent upon the size of said sole.

Claim 56. (*Previously Presented*) A boot according to claim 55, wherein said rear portion of said sole overlaps said front portion of said sole in said junction zone.

Claim 57. (*Previously Presented*) A boot according to claim 55, wherein said junction zone is located in and/or behind a portion of said sole adapted to correspond to the metatarsophalangeal bending zone of a wearer's foot.

Claim 58. (*Previously Presented*) A boot according to claim 49, wherein said one reinforcement structure comprises at least one laminated or non-laminated plate extending from said junction zone, both on at least half of said front portion of said sole and on at least half of said rear portion of said sole.

Claim 59. (*Previously Presented*) A boot according to claim 49, wherein said sole has a predeterminate length and wherein said one reinforcement structure has a length corresponding substantially to at least 60% of the length of said sole.

Claim 60. (*New*) A sole according to claim 1, wherein the front and rear half-soles comprise two distinct non-unitary portions assembled together in the junction zone, the one reinforcement extending longitudinally through the junction zone.

Claim 61. (*New*) A sole according to claim 1, wherein the front and rear half-soles are assembled to one another in the junction zone at least by cementing.

Claim 62. (*New*) A sole according to claim 1, wherein the front and rear half-soles are assembled to one another in the junction zone at least by riveting.

Claim 63. (*New*) A sole according to claim 1, wherein the front and rear half-soles are assembled to one another in the junction zone at least by welding.

Claim 64. (*New*) A sole according to claim 8, wherein the gliding sports apparatus is a cross-country ski, and wherein the coupling element is at least one transverse rod mounted in the front portion of the sole.

Claim 65. (*New*) A sole for a boot according to claim 43, wherein at least one of the front and rear half-soles comprises at least one portion constructed to guide and to connect the sole to a gliding sports apparatus.

Claim 66. (*New*) A boot according to claim 49, wherein said composite material of said one reinforcement structure comprises a material that increases torsional rigidity of said outer sole compared to torsional rigidity without said composite material.

Claim 67. (*New*) A boot according to claim 49, wherein said one reinforcement structure comprises a structure more rigid than constituent materials of each of said front and rear sole portions.

Claim 68. (*New*) A boot according to claim 49, wherein said composite material comprises a matrix with embedded reinforcing fibers.

Claim 69. (*New*) A boot according to claim 49, wherein said one reinforcement structure comprises a composite laminate comprising one or more textile layers embedded in a matrix.

Claim 70. (*New*) A boot according to claim 51, further comprising wear-resisting pads positioned on respective ones of said members for improving adherence of the sole on the support.

Claim 71. (*New*) A sole for a sports boot, said sole comprising:

a front portion;

a rear portion;

the rear portion being more rigid in longitudinal bending than the front portion;

the front portion comprising a reinforcement and a front half-sole affixed to the reinforcement;

the rear portion comprising a rear half-sole affixed to said reinforcement;

the front half-sole and the rear half-sole being assembled together in a junction zone;

the front half-sole further comprising a member for coupling the sole to a sports apparatus;

each of the front and rear half-soles comprising at least one downwardly extending member adapted to cooperate with a support for the sole.

Claim 72. (*New*) A sole according to claim 71, further comprising:

wear-resisting pads positioned on respective ones of said downwardly extending members for improving adherence of the sole on the support.

Claim 73. (*New*) A sole according to claim 71, further comprising:

at least one element for coupling the sole to a gliding support.

Claim 74. (*New*) A sole according to claim 71, wherein:

the sole is a sole for a cross-country shoe, the sole further comprising a coupling device to connect only a front of the sole to a cross-country ski.